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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/714,848	11/18/2003	Koji Maekawa	8014-1071	3156
466	7590	04/19/2005	EXAMINER	
YOUNG & THOMPSON 745 SOUTH 23RD STREET 2ND FLOOR ARLINGTON, VA 22202			NGUYEN, CHAU N	
			ART UNIT	PAPER NUMBER
			2831	

DATE MAILED: 04/19/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	<b>Application No.</b> 10/714,848	<b>Applicant(s)</b> MAEKAWA ET AL.	
	<b>Examiner</b> Chau N. Nguyen	<b>Art Unit</b> 2831	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 09 March 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-18 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-18 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).
3. Claims 1-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Figures 1-3 of Applicant's Admitted Prior Art (AAPA) in view of Taylor et al. (5,430,256).

Figures 1-3 of AAPA discloses the invention substantially as claimed including the electric cord being connected between a vibrator and an input terminal in which the same electric current is flowed through the wires and each wire comprising a plurality of uninsulated core threads (11). Figures 1-3 of AAPA does not disclose the wires being electrically insulated from one another or the surface of the conductor (12), which is wound on the surface of the core thread (11), being covered with an insulator. Taylor et al. discloses an electric cord (Figs 1-2)

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comprising a plurality of wires (10) which are electrically insulated from one another. Taylor et al. discloses that in the case of an uninsulated multistranded conductor of the known art, the fact of its uninsulation causes it to behave as though it is a solid conductor of a given overall gauge, and the audio signal is subjected to skin effect resulting in a negative alteration of the audio signal. Furthermore, uninsulated stranded conductors are subject to the effects of the corrosive atmosphere. As the wires aged, the audio signal is deteriorated (col. 1, lines 53-63).

Accordingly, it would have been obvious to one skilled in the art to apply the teaching of Taylor et al. in the electric cord of Figures 1-3 of AAPA by covering each wire (1a) entirely or by covering the surface of the conductor (12) with an insulator to improve the signal transmission and to protect the conductors as taught by Taylor et al. It would also have been obvious to one skilled in the art to use enamel as the insulator for the modified electric cord of Figures 1-3 of AAPA since enamel is well-known in the art for being used to cover electric conductor.

#### ***Response to Arguments***

4. Applicant's arguments filed March 9<sup>th</sup> 2005 have been fully considered but they are not persuasive.

Applicant argues that the plurality of strands (10) of Taylor et al. are insulated wires, while the core threads (21) of the present invention are not insulated within each wire. Applicant has confused between strands, core threads, conductors and wires. Figure 3 of AAPA discloses each wire (1b) comprising three conductors (1a, see Figure 2 of AAPA), each conductor (1a) comprising core threads (11) which are **uninsulated** core threads and which are wrapped around

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by conductive element (12, see Figure 1A of AAPA). Accordingly, Figures 1-3 of AAPA discloses the invention substantially as claimed including each conductor comprising core threads which are uninsulated core threads. Figures 1-3 of AAPA does not disclose the conductors (1a) being insulated from each other. Taylor et al. teaches each wire (B, Figure 1 corresponding to each wire 1b of Figure 3 of AAPA) comprising conductors (10) which are insulated from each other by insulating (12). Taylor et al. is relied upon for the teaching of insulating conductors from each other in a bundle to improve the signal transmission and to protect the conductors. The feature of each conductor comprising a plurality of uninsulated core threads is disclosed in Figures 1-3 of AAPA.

### *Communication*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chau N. Nguyen whose telephone number is 571-272-1980. The examiner can normally be reached on Mon-Fri.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Dean Reichard can be reached on 571-272-2800 ext 31. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Chau N Nguyen  
Primary Examiner  
Art Unit 2831